

Summary of RPM Meeting Minutes November 6 & 7, 2000

On 6 and 7 November, the George AFB RPM group met at George Air Force Base in Victorville, California. The following RPM group members attended the meeting; a copy of the sign-in sheet is attached. Action items are underlined and summarized in the attached summary matrix.

John Anthony	Parsons Engineering-Science (OU 1 Optimization presentation only)
Jerry Bingham -	AFCEE
Mary Bridgewater -	AFBCA
James Chang -	U.S. EPA
Greg Connell -	MW
Calvin Cox -	TN & Associates
Dave Daftary -	IT Corp. (11/6 only)
Doug Downey	Parsons Engineering-Science (OU 1 Optimization presentation only)
Victoria Guranasen	HydroGeoLogic, Inc. (11/6 only)
Wendy McClellan	MW
Mike Miller -	HydroGeoLogic, Inc. (11/6 only)
Mike Plaziak -	RWQCB
Chip Poalinelli -	MW
Harold Reid -	AFBCA
Sue Tiffany -	MW

SPEAKER	ISSUE/COMMENT
---------	---------------

AGENDA ITEM 2 – OU 1 OPTIMIZATION BRIEFING (Parsons Engineering-Science)

Anthony/Downey	Mr. Downey and Mr. Anthony presented the results of their Remedial Process Optimization of OU 1 Pump and Treat System. (Detailed information was presented in the handout.) Recommendations were unchanged from before; however, it was noted that some of the site conditions/assumptions had changed since the last version of the report, including: <ul style="list-style-type: none"> • Decreased extraction rates • Potential consideration of source reduction
Group	The presence of an on-site hot spot is of concern to RWQCB, even if there's no threat of off-site migration, since the ROD was signed under a 30-year agreement. Would need to get new approval if cleanup extends beyond 30 years. Parsons noted that more wells will increase mass removal, but still won't significantly shorten overall duration of remediation. EPA will not accept natural attenuation (NA) unless the plume is defined and stable, and mass removal technologies have been reviewed and found to be infeasible. EPA recognizes that NA will be <u>part</u> of the remedy, but wants as much active mass removal as possible.

SPEAKER	ISSUE/COMMENT
	<p>AGENDA ITEM 6 – OU 2</p>
	<p><u>6d. Free Product Status</u></p>
Daftary	<p>Presented Free Product Recovery Summary for Sept and Oct 2000 (see handout). Key points:</p> <ul style="list-style-type: none"> • MW-8 fence was installed. • EW-5 fence was removed. • Redevelopment of biofouled wells to eliminate pump clogging is funded, but not yet awarded, for first quarter. • Addition of 5 more extraction wells is also funded but not yet awarded for next year: <ul style="list-style-type: none"> • MW-8/4/5 area • EX-8 area • EX-4 area • EX-3 area • 149,000 gallons of free product extracted to date, with area around MW-4/8 the primary contributor.
	<p><u>6a. SVE Pilot Study</u></p>
Miller/Guranasen	<p>Presented results of HGL's SVE Pilot Test at two locations with highest known JP-4 contamination in the vadose zone (see handout). Key points:</p> <ul style="list-style-type: none"> • Extracted more than expected, up to 64 lb/day TVPH at Location 1. (Total estimated TVPH extracted during test was 10,098 lb at location 1 and 5268 lb at Location 2). • Observed a natural vacuum of 0.8 inches H₂O. Vacuum highest in morning, decreasing as air temperature rose, and increasing overnight. There was no obvious explanation for this. • At Location 1, most of the flow came from the shallow zone. Location 2 had flow across all zones. • Deeper wells were more efficient than shallow wells. There appeared to be some short-circuiting in the shallow zone. • Soil permeabilities (determined on basis of field, not lab, data) at all depths were typical for sand, and suitable for VOC removal. • Recommendations for full-scale design: <ul style="list-style-type: none"> • 30 to 50-foot screen; 0.020-inch slotted screen. • 4-inch diameter well • Max wellhead vacuum of 18-24 inches H₂O
Group	<p>Discussion of future of SVE system – it's not operating now, but is in the 01 program. Air Force is negotiating scopes for 2001 work right now; these were the scopes EPA saw last summer. EPA will need to review status of OU 2 characterization, and determine adequacy of current/planned activities to support "ops." EPA believes SVE is most economical approach, and the Air Force needs to move on to augment existing free product removal. The question arose as to when to shut off SVE. At Norton, system was shut off when concentrations became asymptotic.</p>
	<p><u>6b. FFA Schedule for OU 2</u></p>
	<p>No Change since last RPM.</p>
	<p><u>6c. FT-20 Status</u></p>
Miller	<p>Wait till December meeting to discuss further, when technical staff will be available to present information.</p>
Group	<p>Discussed potential data gaps in this area, specifically to the east. Need to nail issues down so that impacts on power plant construction are defined. ROD is NFA for soil, and there is no ROD for groundwater.</p>
Plaziak/Miller	<p>RWQCB noted that ROD mentions NFA for metals and petroleum products only, but not for TCE; HGL responded that a previous memo discussed TCE in soil gas and soil, concluding that TCE was not an issue. Therefore, TCE was not included in the FS, nor in</p>

SPEAKER	ISSUE/COMMENT
Air Force	<p>the ROD. RWQCB concerned about plume migration to the east. There may be adequate control on the upper aquifer in this direction, but not on the lower aquifer.</p> <p>Discuss issue of additional groundwater investigation in this area at the December technical meeting. ROD is NFA for soil, so there's no basis for conducting/funding additional soil investigation.</p>
Group	<p><u>Technical Meeting – December 7 & 8</u></p> <p>Upcoming technical meeting on December 7 & 8 [since changed to December 5 & 6]will address the scope of year 2001 projects, and identify any issues or outstanding items, including potential 2002 projects (2002 planning is beginning earlier this year – as early as March 2001). The meeting will occur at Montgomery Watson's offices in Walnut Creek, CA.</p> <p>The agenda for the meeting will be a joint effort. <u>The Air Force will get a list of 2001 projects to the regulators, who will then add input regarding any concerns or additional work, and then the Air Force will provide the agenda to their consultants prior to the meeting.</u></p>
[MEETING ADJOURNED UNTIL 8 AM, 11/7]	
AGENDA ITEM 4 - OPERABLE UNIT 1	
Connell	<p><u>4a. Update on OU 1 Pump and Treat Operations</u></p> <p>System is extracting 155 gpm, with total extraction of 1.20 billion gallons of water and 148 pounds of TCE to date. Discharge will be switched from the south pond to the north pond, to achieve better recharge and to avoid the winter accumulation of water in the knock-out tank at Site FT-19c.</p>
Tiffany	<p><u>4b. OU 1 Model Update and Optimization</u></p> <p>Update of OU 1 model begun; will continue into 2001 with upcoming funding. Optimization of the overall OU 1 system not yet funded.</p>
McClellan	<p><u>4c. Data Gap Wells – Northeast Area</u></p> <p>The planned locations of two wells were moved from Parcel 16 to 15 due to access considerations. Wells will be drilled with HAS where feasible; ARCH where needed. Anticipate 3 wells with each method, for a total of 6. All agreed with this approach. Field work planned to start 8 January 2001. If the dieldrin drilling finishes up early enough, Montgomery Watson will look into starting data gaps before the end of the year.</p>
Tiffany	<p>J. Bingham has been notified of need for extension for data gaps (and dieldrin) schedules into 2001, and will assist in paperwork as requested by AFBCA.</p>
Cox	<p>Some of the planned well number designations may have been "used" by HGL – <u>C. Cox will check and let Montgomery Watson know what numbers are available for the data gap wells.</u></p>
AGENDA ITEM 5 - OPERABLE UNIT 3	
Connell	<p><u>5a. Site OT-51 Status</u></p> <p>Both the SVE and bioventing systems are currently on line. Weekly field monitoring has begun. Monthly testing will begin 27 November, in support of ops. Draft copies of the Explanation of Significant Difference (ESD) were handed out for review and comment. The document is scheduled to go final on 26 December, and regulatory comments on the draft were requested by 21 November.</p>
Group	<p>Agreed to combine OT-51 Remedial Action Construction Workplan into the OT-51 RA Report, due to the accelerated nature of the installation of the RA system.</p>

SPEAKER	ISSUE/COMMENT
	<u>5b. Skeet Range Status</u>
Poalinelli	<p>Results of additional characterization will be sent out in a tech memo 8 November. Four small areas are recommended for excavation and off-site disposal. This memo presents what's already been discussed in conference calls. No comments or revisions are anticipated.</p> <p>Air permitting may be a problem. Air Board said that they will shut operation down if dust goes beyond GAFB boundaries. Potential options to control emissions include:</p> <ul style="list-style-type: none"> • Post treatment wetting (can't wet prior to treatment or system won't work). • Decrease number of units operating at one time (this will extend the overall time of shot removal and will result in additional oversight costs.) • Use prototype currently in development for stationary remediation, and equipped with bag housing (would have to excavate and transport soil to unit, then transport back for spreading, leading to extra costs and air emissions). <p>Sears has offered to mob one unit early to provide demo for Air Board. Photos of operations at another site are provided in handout.</p> <p>Premob items include:</p> <ul style="list-style-type: none"> • Removal of power lines to the Club House (<u>H. Reid and C. Cox will take care of this.</u>) • Removal of razor wire and posts. • Biological survey for desert tortoise, burrowing owl, and Mojave ground squirrel. (Karen Kirtland to do – has done previous work at GAFB, and works in conjunction with Fish and Game personnel). <p>(Grubbing is not needed, per Garland Sears, and the money for this activity can be used to offset the costs of excavation; however, additional funds will be needed for disposal of soil).</p>
Poallinelli/Plaziak/ Chang	<p>SAP Addendum for the Excavation and Shot Removal will be issued 17 November, with comments requested for 22 November, and final issued 27 November, so that excavation can start the week of 27 November. (Shot removal is scheduled to begin 4 December.) <u>RWQCB and EPA will try to meet these deadlines.</u></p>
Group	<p>To help get the Air Permit by 4 December, Montgomery Watson will go ahead with the one-unit demo.</p>
Poalinelli/Group	<p>Reiterated agreement that PAHs are not an issue given the limited amount of rain. Fish and Game is not concerned with leachability in this situation, and EPA/RWQCB defer to their judgement.</p>
Poalinelli/Group	<p>Summarized major issues that may impact cost and schedule:</p> <ul style="list-style-type: none"> • Air emissions – will need to schedule work during low wind velocity. Winds are usually worst in spring/summer. Rain usually holds off till mid February. • DOT coordination (highway and airport) – work at night (Sears is willing to do this). • Detections above levels of concern in confirmation samples. <p>Contingency plans include:</p> <ul style="list-style-type: none"> • Operating fewer units at a time • Operating the stationary prototype unit.
	<u>5c. Dieldrin Investigation</u>
McClellan	<p>Presented proposed approach for remainder of effort:</p> <ul style="list-style-type: none"> • Start with HSA; have ARCH available if needed. • Stop drilling if upper aquifer not encountered, and grout up the hole. • No replacement location for NZ-87. • No change of proposed locations for other wells.
Group	<p>Discussion of soil sampling. EPA is concerned that source areas are not being sampled, and noted that the site will not be released/closed until soil is adequately investigated. EPA identified specific areas of concern in comments on the Parcel J FOST. <u>C. Cox will get copy of these comments to Montgomery Watson.</u> Air Force noted that Golf Course Building had no known mixing, and that mixing at Entomology occurred inside, in closed containers. The CE building would be a more likely source; it's older and mixing was conducted outdoors, on site. It was agreed that the results of the groundwater pesticide</p>

SPEAKER	ISSUE/COMMENT
	<p>investigation would be presented to the RPMs when available, at which time identification and prioritization of specific soil sampling locations would be discussed.</p> <p>AGENDA ITEM 7 - BASEWIDE</p> <p><u>7a. 5-Year Review</u></p>
Connell	Document was submitted on 20 October, comments received are due on 20 November, and draft final will be issued 30 November. The document did not include a protectiveness statement for OU 2, since there is no signed ROD.
Group	<p>EPA noted that the protectiveness statements need to be revised to reflect that progress is being made, but that the remedy is not yet fully protective due to lack of complete plume definition, and incomplete achievement of RAOs (e.g., significant mass removal). Items to note:</p> <ul style="list-style-type: none"> • Better plume definition is underway, reaching towards goal of protectiveness. • Efficiency of OU 1 system is currently being evaluated with respect to meeting RAOs. <p>The Air Force noted that this seemed reasonable, but would need to check with legal staff. <u>MW will identify specific passages where protectiveness statements are included, propose alternate wording, and forward to Air Force.</u> It was agreed that this needs to be done before regulatory comments on draft are submitted, and that slippage of the 31 December deadline for document finalization was acceptable if the time was needed to resolve this issue.</p> <p><u>7b. Next BCT Meeting</u></p>
Group	<p>The next meeting will be on 23 and 24 January 2001. LRA meeting will begin at 1 p.m. on the 23rd, followed by the RPM meeting at 2 p.m. Minutes will be distributed electronically. EPA noted that the FFA schedule needs updating – preferably at the next BCT meeting.</p>